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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,977	08/16/2006	Heinz Sibum	20496-499	9590
42532	7590	11/23/2009		
PROSKAUER ROSE LLP ONE INTERNATIONAL PLACE BOSTON, MA 02110			EXAMINER FOGARTY, CAITLIN ANNE	
			ART UNIT	PAPER NUMBER
			1793	
			MAIL DATE	DELIVERY MODE
			11/23/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Advisory Action**  
**Before the Filing of an Appeal Brief**

**Application No.**

10/560,977

**Applicant(s)**

SIBUM ET AL.

**Examiner**

CAITLIN FOGARTY

**Art Unit**

1793

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 09 November 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

/Roy King/  
Supervisory Patent Examiner, Art Unit 1793

/Caitlin Fogarty/  
Examiner, Art Unit 1793

Continuation of 11, does NOT place the application in condition for allowance because: the arguments filed 11/9/2009 are not persuasive and no claims have been amended.

Applicant is correct that the Examiner mistakenly applied the wrong set of rules to impose the restriction requirement. However, the restriction set forth in the 5/21/2009 Office action is still proper under PCT Rule 13. Group 1 (Claims 1, 2, 4-9, and 18) and Group 2 (Claims 10-17) do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding technical feature. The question of unity of invention has been considered retroactively by the examiner in view of the search performed. A review of Bomberger et al. (US 3,615,378) makes it clear that the claimed species is not novel over the prior art. Bomberger discloses a beta titanium alloy with an overlapping composition with the beta titanium alloy of the instant invention. Furthermore, this reference appears to demonstrate that the technical feature (i.e. the composition of the beta titanium alloy) does not define a contribution which each of the inventions, considered as a whole, makes over the prior art. Thus, lack of unity becomes apparent "a posteriori" after taking the prior art into consideration. Accordingly, the prior art of the record supports restriction of the claimed subject matter in the groups mentioned above.

Applicant also argues that all alloy compositions disclosed by Bomberger, converted from atomic to mass percent, are different from the instantly claimed compositions. In particular, Bomberger's vanadium content is 1.97-8.06% which does not overlap with Applicants' 13-17%. For example, the highest vanadium mass percentage disclosed by Bomberger is 8.06% in Table 1 Alloy 11, which is substantially lower than the lowest vanadium percentage, 13% claimed by Applicants. Therefore, the composition of the beta titanium alloy of Bomberger does not overlap with the composition of Applicants' claimed beta titanium alloy, belying the Examiner's allegation.

Although the compositions of the specific embodiments of Bomberger do not overlap with the instantly claimed ranges, the scope of Bomberger is not limited to the specific embodiments it teaches. See MPEP 2123. The Examiner takes the position that the broadest disclosure of Bomberger taught in col. 2 line 25-col. 3 line 8 discloses a beta titanium alloy with a composition that overlaps with the composition of the instant claims when the composition of Bomberger is converted to mass%. For example, a beta titanium alloy composition of 76.5 at% Ti, 3 at% Fe, 15 at% V, 1 at% Mo, 4 at% Al, and 0.5 at% Zr is within the broadest disclosed compositional ranges of Bomberger. When the previous atomic composition is converted to mass%, the alloy composition is 75.6 mass% Ti, 3.5 mass% Fe, 15.8 mass% V, 2.0 mass% Mo, 2.2 mass% Al, and 0.9 mass% Zr which is within the ranges recited in the instant claims.

Applicant also argues that modifying the composition of Bomberger is discouraged by Bomberger. Bomberger requires a VED of 4.15-4.35 which is dependent on the composition of the titanium alloy. Because vanadium has 5 valence electrons, one of ordinary skill in the art would understand that increasing vanadium content above 8.1% would further increase the VED value over 4.35, which is undesirable according to Bomberger. Therefore, Bomberger discourages increasing vanadium content beyond 8.1 at% (8.04 mass%). Applicants submit that if the vanadium content of Bomberger's alloy were modified and increased to 13-17% as claimed by Applicants, the corresponding VED would be greater than 4.35, thereby making the modified titanium alloy unsuitable for Bomberger's intended purpose.

The Examiner respectfully disagrees with Applicant regarding the VED value of Bomberger and does not agree that if the vanadium content of Bomberger is increased within the instant claimed range then the corresponding VED would be greater than 4.35. For example, the example cited above of a beta titanium alloy composition of 76.5 at% Ti, 3 at% Fe, 15 at% V, 1 at% Mo, 4 at% Al, and 0.5 at% Zr that is within the broadest disclosed compositional ranges of Bomberger and also within the instant claimed compositional ranges has a VED value of 4.25 which is within the range disclosed by Bomberger.